Hertie School

Master's Thesis Guidelines for Academic Year 2023-2024

- Master's of Public Policy (MPP)
- Master's of International Affairs (MIA)
- Master's of Data Science for Public Policy (MDS)

Contents

1   Introduction

The Master's Thesis (MT) module is a key component of the MPP, MIA, and MDS programmes. The MT module represents 16% of the total credits of each programme (i.e., 24 out of 120 ECTS credits). In the MT you demonstrate your capacity to produce an independent piece of high-quality scientific research that expands our knowledge of a particular social, political, or economic phenomenon of relevance for public policy, international affairs, and/or data science. The MT requires you to draw on the theoretical knowledge, critical thinking skills, and methodological expertise that you have acquired during your studies, to design and implement an independent research project.

In these guidelines, you will find information on all essential aspects of the master's thesis process. The guidelines are updated yearly and are a stand-alone reference work to answer most of the questions concerning the MT process that might arise from the beginning of your studies until the submission of your thesis. The guidelines are aligned with the Module Handbooks of the MIA, MPP, and MDS which outline the general curricular requirements of the three programmes.

While the requirements and learning objectives of the Master's Degree Module are largely identical across the three referred programmes, in some dimensions there are important differences to consider. Differences in requirements by programme will be specified within the guidelines.

Should you have any specific questions not addressed by the information provided in this document, please contact the Curricular Affairs team. Our key functions in the MT process are:
   (1) To provide useful and up-to-date information about the MT process,
   (2) To match students with supervisors to ensure that all students have a supervisor and are enrolled in a MT colloquium,
   (3) To liaise with faculty members, faculty assistants, and other administrative units, to ensure that the MT process is as smooth and enjoyable as possible for all students,
   (4) To prepare and develop support resources for students. While Curricular Affairs can only provide administrative advice, and not academic advice, we can point you to relevant support resources (e.g., workshops, consultations, sources).

Please also contact us if you have feedback on these guidelines and the MT process in general. We constantly update and expand these guidelines incorporating feedback from students, faculty, and the school's leadership. We know that the MT process can seem daunting at first – hence we aim to provide as much certainty and clarity on this endeavour as possible, so you can focus on what truly matters: producing an original piece of scientific research aligned with your own academic and professional interests, that truly represents the pinnacle of your master's studies.

We wish you an engaging and exciting Master's Thesis process!

Dr. Gabriel Tarriba
Director, Curricular Affairs
tarriba@hertie-school.org

On behalf of the entire Curricular Affairs Team
curricular-affairs@hertie-school.org

2   The Master's Thesis Module

2.1   Learning objectives and components

The master's thesis is the capstone of the two-year MPP, MIA, and MDS programmes. The module requires students to demonstrate their theoretical, empirical, and methodological knowledge by designing, planning, and implementing a research project that carefully analyses a policy-relevant scientific or societal challenge and contributes to its solution. For their thesis, students are expected to make full use of the variety of technical tools, methodologies and academic knowledge acquired over the course of their graduate education to deliver a thesis in the field of data science.

At the end of the module, students will have proven their ability to:

i.   Conduct a research project independently.

ii.   Critically engage with the academic and policy debate on the chosen research field

iii.   Effectively design and execute methodologically rigorous research.

iv.   Formulate a set of policy recommendations on this basis.

v.   Visualise their research findings in the Master's thesis poster.

vi.   Constructively engage with their peers' research in the colloquium.

The Master's Thesis Module comprises 24 ECTS credits (i.e., 16% of the total 120 ECTS of each of the programmes). The module comprises two units, the Master's Thesis Colloquium (8 ECTS) and the Master's Thesis Research (16 ECTS), which includes the actual master's thesis as well as the master's thesis poster. To earn the 24 ECTS of this module, you must:

1)   Attend the **thesis colloquia** organised by your master's thesis supervisor.

2)   Submit a **thesis draft** according to the information contained in these guidelines. Please note that both the thesis length and the requirements concerning the submission of additional documentation differs between MPP/MIA and MDS (see more details in section 2.3 The Master's Thesis Draft).

3)   Submit a **digital poster** for the online exhibition taking place at the end of the academic year, following the instructions contained in these guidelines.

In the remainder of this section, we explain in a bit more detail the requirements and expectations concerning each of these elements of the Master's Thesis module.

2.2   The Thesis Colloquium

Overview

The Master's Thesis Colloquium (MTC) accounts for 8 ECTS (33% of the MT module) and is primarily a space for discussion and constructive student-to-student and supervisor-to-student feedback. The aim of the colloquium is to orient and support the different stages of your thesis project, from the research design stage to the analysis stage and the thesis draft write-up. In practical terms, the colloquium generally comprises 5-6 sessions with your supervisors and their other supervisees. Exceptionally, it may also comprise individual supervision meetings.

In the colloquium, students design, develop and advance their research projects under the guidance of their supervisor and as part of a peer group of advisees. Supervisors offer a master thesis colloquium that runs from the second half of semester 3 (i.e., from the 2nd half of November) until the first half of semester 4 (i.e., March or April). The colloquium supports and trains students to:

- Develop their research question, theoretical approach, and methodological design.
- Choose appropriate methods of analysis.
- Present first empirical findings.
- Engage with, critique, and respond to their peer advisees' projects.

Upon completion of the MTC, students will be prepared to finalise their written master thesis and submit by the set deadline.

Components of the colloquium

In general, all colloquia comprise two components. The first one is **research design**: supervisors will expose you to fundamental ideas in the philosophy of science that are the cornerstone of modern scientific inquiry, and will advise you on the overall design of your research project -from the exploration of specific real-world phenomena to the development of a research question, and then to the crafting of sound hypotheses and the identification of adequate empirical strategies to test them.

The second component consists of supervisor-led **seminar-style discussions** centred on the various stages of your research project. The backbone of these sessions is the peer-to-peer and supervisor-to-peer feedback on concrete elements of the thesis process. These discussions should orient students and gently guide them towards the goal line: the submission of a final thesis draft.

Please note that individual supervision depends on how the colloquia are structured by each supervisor. For a better reference of Faculty members and supervision plans visit the Master's Thesis information tile on Moodle.

Grading

The master's thesis colloquium is graded with "pass/fail".

Schedule

Colloquia generally take place according to the following schedule:

- The first two colloquia should take place between late November and the end of the Fall semester (January 31).
- The four remaining colloquia should take place early in the Spring semester (February 1 to early to mid-April).
- The schedule and format of colloquium sessions are decided by the individual thesis supervisors (see individual supervision plans posted on Moodle). Once you have been allocated to a supervisor, your supervisor will confirm the colloquium schedule and format.

Assignments and attendance

Your attendance of the colloquia is compulsory. If you are unable to attend a session due to illness or extenuating circumstances, please contact the Examination Office and your supervisor. Your absence must be compensated with an additional assignment or an extra meeting. If you miss a session unexcused, you are not entitled to extra supervision. All supervisors will give you clearly specified tasks for colloquia and supervision meetings. It is your obligation to submit these tasks on time, to

allow your supervisor sufficient time for feedback. Please consult the faculty's individual supervision plans for more information.

Faculty on sabbatical and students on exchange

Some faculty members may be on sabbatical or research leave during the Fall or Spring semester. If your supervisor is on sabbatical or research leave, please read their supervision plan carefully for more information on when the colloquia sessions will take place and how to contact your supervisor during this time. Supervision may also take place online.

If you are a student participating in an outbound exchange programme in the Fall semester, you are still entitled to supervision. Please contact your supervisor and make alternative arrangements to make up for the colloquia you are unable to attend. Supervision may also take place online.

The role of the supervisor and your role as researcher

The master´s thesis tests your ability to design and implement a complex research project complying with modern scientific standards, within a given timeframe. This includes the ability to set your own timetable, manage your project independently, and sustain your research over several months, making important decisions along the way.

In this context, the central role of a supervisor is to advise you on fundamental questions of research design and research project management, help you to identify open questions about your research goals, methods, and design, and orient your efforts toward the final goal of delivering a final thesis draft on time. A good supervisor will not replace a strong research plan and work ethic. Rather, a good supervisor will enable you to plan and develop your thesis project in an orderly, rational, and deliberate manner, always with the end goal in focus.

It is important to note that your supervisor need not be an expert in your topic of interest. This is impossible to guarantee, given the extraordinarily broad range of research interests of students and the high degree of specialisation of most MT projects. Inevitably, even if your supervisor is knowledgeable about your topic, by the end of your thesis project you will be a bigger expert in your topic than your supervisor, due to the high level of subject-matter specialisation that is at work in nearly all MT projects.

Moreover, due to the dynamic nature of supervision demand across topics and expertise areas, it is common for certain supervisors to be over-demanded, which means that the number of students who want to work with them exceeds their supervision capacity, resulting in some students not being able to work with them. It is for this reason that the Hertie School cannot guarantee students that they will be able to write theses under the supervision of faculty members of their choice.

However, as outlined above, the core function of supervisors is not to provide or share specialised subject-matter knowledge but rather to advise students on questions of research design, the scientific method, and the management of a research project more broadly. All faculty members are highly trained scientists and can supervise theses on a broad range of topics, even those outside their core research areas.

2.3   The Master's Thesis Draft

This section refers only to the master's thesis draft, not to the entire master's thesis module (which, as indicated above, also includes the MT colloquium and the master's thesis poster). The master's

thesis draft is the most important element of the Master's Thesis module, with 16 ECTS credits (66% of the total MT module credits).

Authorship

The master's thesis can be written individually or as a joint project with another student. Please observe below the different word limits for theses jointly written with another student.

Recommended length

Below are recommended lengths for the master's thesis, which differ by programme. Generally, students are expected to deviate from this guideline by no more than 10%.

- MPP/MIA: 12,000 words (14,000words for joint projects).
- MDS: 7,000 words (10,000 words for joint projects).
- **Important**: In addition to their written thesis, *MDS students need to submit the full working code, programming documentation and data for replication of their research*. These appendices (code, documentation, and data) are not included in the 7,000-word limit. For more details see section 2.5 below

Grading and Feedback

- The thesis must be passed to obtain your degree (i.e., score a minimum mark of 50%, or 4.0 in the German grading scale).
- Your thesis will be graded by your supervisor and by a second reader (i.e., another faculty member), who will agree on a final grade.
- You will receive written feedback from your supervisor at the end of the process, integrating the comments by the second reader. The second reader will be allocated after you have submitted your thesis. This allocation is done by Curricular Affairs and students are not involved in it.
- If you write your thesis as a team of two students, each team member will receive an individual grade and needs to specify their specific contribution when they submit the thesis.
- Should you receive a grade below 50% (or a 5.0 in the German grading scale), you will have a second (and final) attempt, with a new topic and a new supervisor. Please contact the Examination Office to discuss further details.
- Further information can be found on Moodle.

2.4   The Master's Thesis Poster

All students must also produce, submit, and exhibit a thesis poster (A1 size portrait format) where content, methodology and research results of the master's thesis are presented in order to fulfil the master's thesis study requirement. Students submit the poster in **digital format** only.

- The master's thesis poster will be graded as "pass/fail".
- Further information on how to create a research poster is provided on Moodle and further below in these guidelines.
- Posters will be exhibited digitally in the yearly Hertie School Master's Thesis Poster Exhibition, which is open to the public.
- All posters can also enter the yearly Poster Competition. The best 3 posters will be awarded prizes and honoured by the Hertie School President at the Graduation Ceremony.

- You can find examples of excellent posters from previous years exhibited throughout the Hertie School – especially in the cafeteria.

2.5 Additional Documentation Requirement for MDS Students

In addition to the written thesis and poster, MDS students are also required to submit a full replication set containing computer code, accompanying documentation, and data (considering relevant data protection legislation and agreement with the data owners) combined as a repository on GitHub. If your collected data is stored elsewhere, please indicate how to access it on your GitHub repository Readme.

It is highly recommended (but not required) that the project details are set up as a website containing all information on the implementation of the project. If you are building a web app, or a working prototype of a system to accompany your thesis, the website will effectively display your work, especially to future employers and other researchers interested in your chosen topic.

3   Guidance on Contents and Structure of the Master's Thesis

The current section offers general guidance on how to structure your master's thesis and what contents to include. However, you should always discuss questions about contents and structure of your MT with your supervisor. There is no "one-size fits all" approach for structuring a master's thesis and some theses have unique features that need to be considered. For general guidance on research design, browse the resources posted on the Research Skills and Methods section of Moodle as well as the Library Resources for the Master's Thesis Moodle section.

Please bear in mind that all master's theses are independent pieces of academic research and need to display a good understanding of research design, methodology, analysis, and argumentation. When writing your thesis, your main aim may be to make an impact on a policy debate or governance challenge, but your chances of having an impact are much greater if you can demonstrate that your evidence and results are collected and generated under valid and reliable research procedure.

3.1   General Guidance on the Elements of a Master's Thesis

A good master's thesis is a structured, cohesive, and readable scientific text that tells a compelling "story" to an audience. By and large, to produce a good thesis you will need to:

1. Identify a **Puzzle** that needs to be answered. Consider the following questions:
   a. Why are you focusing on *this* question?
   b. Why does it deserve our attention?
   c. What is it that other scholars have missed about this issue until now?
   d. Why is it interesting, for you and for society?
   e. What are the implications of possible findings?
2. **Review the Relevant Literature**. Use the literature review to point to a gap in the literature that your study aims to fill. Critically assess, synthesize, and summarize the evidence from the relevant literature. Make sure to understand the broader literature, then narrow into your specific research field.
3. Use the puzzle, the literature review, your own knowledge, and your critical thinking skills to introduce a relevant **Theoretical Framework** that ties together in a persuasive and clear way the key concepts of your chosen study field. A good theoretical framework serves as a roadmap to develop your central argument(s).

4. Develop a **Research Question** that connects your puzzle to a relevant theory. Good research questions are concise, specific, challenging to answer but manageable, and analytical (e.g., start with WHY, HOW or WHAT) rather than descriptive (i.e., that can be answered YES/NO).

5. Building on your research question, define and specify the **Methodology** by which you will try to answer your research question. There should be an overview of your research methodology and the theory and/or architecture behind your project. Think not only of the actual **Methods** you will employ but also about your **Data Collection Strategy.**

6. **Collect and analyse the empirical evidence**. If your thesis involves empirical analysis, after collecting and preparing your data you will need to analyse it using adequate methods. You should be open and transparent as to how you collect, wrangle, and engineer your datasets, what specific analyses and (if applicable) experiments you run, and how you measure and evaluate the goodness of your results.

7. Describe your **Findings** and discuss what your **Results** explain about the initial puzzle and research question. Discuss implications for theory. You can use tables and figures, but you do not have to include all produced visualization of your research, only the interesting and relevant figures for the discussion. You should also try to tell a story about the data and your findings, and not simply describe the figures.

8. Discuss **Policy Implications** of your study, elaborate a **set of Policy Recommendations**, and point out any ethical considerations.

9. In the **Discussion** or **Conclusion sections**, recap your research, highlight its **contributions** to the literature and the research community, as well as its implications for public policy and governance debates. However, you should also be honest about the **limitations** of your research project and offer some suggestions on how to overcome them in future studies (or you may want to discuss more generally some **ideas for future research**).

10. MDS students are also highly encouraged to work on a **prototype solution** to the problem that you are trying to tackle. It is not a requirement for the thesis, but it will add value to your work and allow others to interactively engage with the results of your research.

3.2   Further advice

- **Be concrete, realistic, and focused.** Your topic and research question must be sufficiently concrete, precise, and focused to be feasible in the context of a master's thesis. As explained in these guidelines, you only have a certain word count and a few months to work on the thesis –in parallel to your classes and coursework. Although it is expected that you produce an original piece of research, there is a limit to how ambitious you can be, given the constraints. Your supervisor and the feedback you will receive in the colloquia will assist you to define an adequate scope to your research project.

- **Get an early start on the relevant literature**. A good literature review is time intensive. You must take the time to engage with the existing literature, to locate your master´s thesis in relation to the relevant debate(s)/positions/issues, to identify where your master´s thesis fills a research gap, and to contextualise the approach chosen.

- **Prepare yourself on the relevant research methods**. Use the relevant skills and methods resources at your disposal, and set aside enough time to master the methods that are relevant for your thesis. You need to justify why you have selected certain methods for your thesis, so you need to make sure that you understand well what their strengths and limitations are, compared to alternatives.

- **Think early on about your data collection strategy.** If you plan to collect or draw on original data, please make sure early on that you will have access to the data you may need –be that a dataset or interviewees. This is often a crucial criterion determining whether a thesis is feasible!

4   Selecting a topic and finding a supervisor

4.1   Choosing a Research Topic and Developing a Research Question

- Your thesis should focus on a relevant phenomenon related to public policy and/or international affairs. You should be able to explain your motivation to pursue original and independent research in this topic.
- Once you have focused on a topic, identify, or develop a good research question that you can tackle. A good approach is to start broad and then narrow down the question gradually, as you start to read more on your topic of interest.
- We recommend that you attend the Master's Thesis workshops organised by Curricular Affairs to help you with the design and management of your project. Understanding the methodological requirements of the scientific approach will help you further specify your research question – be this before or after the submission of the proposal.

4.2   The Master's Thesis Proposal

The process of finding a topic and a supervisor is facilitated by the Master's Thesis proposal. For this purpose, you must submit your thesis proposal using an online proposal form. This online form consists of a series of questions which you must provide with a clear answer. The proposal collects valuable information about your research interests, motivation and methods that gives potential supervisors a clearer idea of your thesis project and enables them to decide if you are a good fit.

Please visit the designated Moodle page to view the list of questions included in the Master's Thesis proposal form.

Remember: you should design a thesis project aligned with your interests and skills, independently of who supervises your work!

Advice:
- Attend the master's thesis info session organised by the Curricular Affairs Team at the beginning of the academic year. For more information please see this Moodle page.
- The Master's Thesis Moodle Page is always a good starting point to plan ahead.
- Check out the Master's Thesis Skills and Methods Resources section on Moodle and make use of the resources available at the Hertie School to aid your preparation.
- We encourage you to check the Hertie Campus News and the Master's Thesis tile in Moodle for announcements and upcoming events related to the thesis process.
- To identify potential research questions and datasets, MDS students can consult relevant conference proceedings (such as Data for Policy, or workshops at NeurIPS, ICML, ICLR etc. such as ML4D, CCAI, etc.), Papers with Code, or ask researchers specializing in your topic of interest for pointers to resources. Additionally, explore synergies with Hertie faculty members early, who may be able to suggest research questions.
- You are encouraged to book an individual consultation with the Data Science Lab's Research Consulting Service in case you have specific questions or concerns about your research project.

The deadline for submitting your proposal form is 23:59 (Berlin time) on **1 October,** every year.

Failing to submit your proposal form by the specified time means that your preferences for a supervisor may not be considered.

4.3   The Supervision Allocation Process

- As part of your thesis proposal, you will be asked to list your five preferred supervisors (in ascending order, where 1 = your most preferred choice). The Hertie School has centralised the allocation process to give all students the same chance to find a suitable supervisor.
- Your supervisor should be part of the Hertie School Faculty with a supervision plan published on Moodle. Only in exceptional cases will non-Faculty members of the Hertie School community be eligible as supervisors.
- Whenever possible, students will be allocated to the supervisors of their choice. However, demand for specific supervisors sometimes exceeds their capacity. In these cases, supervisors in high demand will select the students they supervise by examining the thesis proposals submitted and assessing the relevance and quality of the proposals.
- Please keep in mind that, while we will do our best to match you with your top choice, we cannot guarantee that you will be paired with one of your five choices.
- Remember that the main role of the supervisor is not to provide subject matter expertise, but rather to guide you in the design and implementation of your research project. A supervisor need not be an expert in your thesis research field in order to supervise and advise you effectively.

5   Practice Partners

Some students choose to cooperate with a "practice partner" to strengthen the policy relevance of their research. This cooperation can be a good opportunity to enhance the applicability of your research in the world of policy and practice – please note that this is not a compulsory requirement.

5.1   Choosing Practice Partners and Clarifying Expectations

Students are free to choose their practice partners. Some students work closely with their internship institutions and have access to interviewees and databases. Other students proactively approach institutions from their field of study and research. Some supervisors offer supervision projects that already have a built-in project partner. Review the Master's Thesis Practice Partner Page on Moodle for more advice on finding a practice partner.

There are no formal requirements regarding the collaboration with a practice partner. It is up to the student, the supervisor, and the institution to determine what kind of relationship they will have. It differs with each student, and previous partnerships have ranged from interviewing people, to working on a project determined by the practice partner.

However, please do make sure to clarify expectations from all sides at the beginning of the process. Your thesis should not become a consultancy work for an external institution with little input from supervisors and with little control over the choice of the research questions you ask and the direction of your research. Also, please make sure that you get access to the data you may have been promised—do not leave this until it is too late!

5.2 Confidentiality

Please discuss with your practice partner early on to what extent the material you use must remain confidential. If necessary, you should discuss with your supervisor how to code data (interviews, documents) so that the data source is not revealed. You can also choose to not have your poster displayed at the poster session. Finally, you can instruct the Library that your master's thesis is classified and cannot be made available to third parties.

6 Formal Requirements

6.1 Master's Thesis Word Count and Formatting

Word count

- The MPP/MIA thesis consists of 12,000 words (+/- 10%) and the MDS thesis consists of 7,000 words (+/- 10%), excluding appendices and code material.
    - For MPP/MIA group thesis projects the **length** is: 14,000 words (+/- 10%) [7,000 words (+/- 10%) per participant].
    - For MDS group thesis projects the **length** is: 10,000 words (+/- 10%) [5,000 words (+/- 10%) per participant]
- **Additional documentation for MDS Students**: MDS students must include a full replication set containing computer code, accompanying programming documentation, and data (considering relevant data protection legislation).
- All texts, executive summary, list of abbreviations, footnotes, endnotes, and title pages are included in the **word count**.
    - Bibliography and appendices are not included in the **word count**, however, footnotes and tables in the text are included.
- Please note that deviations in the **word count** can negatively influence your grade. Any significant deviation (beyond 10%) should be discussed with your supervisor before submission.

Formatting

- Use 12-point font and only one font type throughout the entire document.
- Use 3-4 cm (1.2") margin for the evaluators to add comments.
- Number pages consecutively (from the fist introduction page to the last conclusion page)
- Table of contents, list of abbreviations, appendices, bibliography, statement of authorship etc., may be numbered using roman numerals.

Contents

- The title page must contain:
    1. Title (and subtitle)
    2. Name of the thesis supervisor
    3. Name of the practice partner(s)
    4. Student's name, study programme and year of graduation
    5. Word count

- The Main Body of your master's thesis draft should include these elements:
  1. Table of contents
  2. Executive summary (about 1 pg.)
  3. Main sections (e.g., Introduction, Literature Review, Theoretical Framework and Research Question, Research Design, Results, Conclusions, etc.)
  4. Bibliography
  5. Signed statement of authorship (included in the digital version and bound as the last page of the hard copy)
  6. Signed library submission form (completed and signed, this should not be included in the bound version, but must be submitted with the hard copy)
  7. *For groups only*: Signed group form (the form should be added to your digital as well as to your hard copy)

6.2 References and Citations

All source material must be documented. All ideas and words of others must be formally acknowledged in an appropriate and unambiguous way. To do otherwise is plagiarism and has serious consequences. Please consult the Examination Rules §§ 16 and 17 for further information. You must reference direct quotations, paraphrases, summaries of ideas, and opinions formulated by others.

At the Hertie School, you will be expected to cite your sources according to the latest edition of the American Psychological Association (APA) citation and format style. For further information on APA style please consult the following sites:

- APA Citation Tutorial
- APA Style Blog
- APA Homepage

The APA Publication Manual is available in print at the library at call number I.04.02_152. Under the call number I.04.02_228, you will find a simplified APA style guide, which is also available electronically.

Essentials of the APA Page Formatting and Style

The following information is from the APA Publication Manual[1], and includes examples. We encourage you to read the APA resources presented beforehand for a better understanding of the citation system.

There are two parts to referencing: the citations within the text of your paper and the reference list at the end of your paper. Moreover, the APA Style uses the author-date citation system. This system allows readers to find the sources cited in the text in the reference list, where each source is listed alphabetically. To insert a citation in the text, include the author's surname and year of publication. For a direct quotation, include the page number or the specific location of the phrase or sentences used from the original work. Here are examples of how to use the author-date citation when paraphrasing (see American Psychological Association 2016, pg. 174-176):

---

[1] American Psychological Association (2016). *Publication manual of the American Psychological Association (*sixth edition). Washington D.C.

- Kessler (2003) found that among epidemiological samples...
- Early onset results in a more persistent and severe course (Kessler, 2003).
- In 2003, Kessler's study of epidemiological samples showed that...

Example of a direct quotation:
- "Undeniable mistakes were made by researchers" (Kessler, 2003, p. 14).

The Reference List

The purpose of a reference list is to help readers find the sources you used. Therefore, the reference list should be as accurate and complete as possible. Put the references in order by the author's surname, or first author's surname if there is more than one author (see American Psychological Association 2016, pg. 180-192).

In this link you can find a specific list of examples that show you how to cite different types of sources in the APA style.

How Should I Cite My Interviews?

According to the APA style blog[2], interviews, as a form of personal communication, do not provide recoverable data and therefore are not included in the reference list. However, we recommend you do include a list of interviews in your bibliography, for your readers to be able to gauge the extent of your research effort. When you cite interviews in-text, please give the initials as well as the surname of the interviewee and provide as exact a date as possible (see American Psychological Association 2016, pg. 179):

- (J. Smith, personal communication, August 15, 2009)
- J. Smith (personal communication, August 15, 2009)
- **Important:** where an interviewee prefers to stay anonymous, please decide on a code system with your supervisor.

By contrast, recoverable interviews should be referenced as archival material:

Reference entry of an interview recorded and available in an archive:
- Smith, M. B. (1989, August 12). Interview by C. A. Kiesler [Tape recording]. President's Oral History Project, American Psychological Association. APA Archives, Washington, DC.

Reference entry of a recorded interview, no recording available:
- Sparkman, C. F. (1973). *An oral history with Dr Colley F. Sparkman/Interviewer: Orley B. Caudill*. Mississippi Oral History Program (Vol. 289), University of Southern Mississippi, Hattiesburg.

Please note that if you must cite interviews in your master´s thesis, it is best to discuss expectations with your supervisor before planning your interviews. Your supervisor will let you know whether you need to provide a transcript of the interview and whether it needs to be included in your master´s thesis as an appendix.

---

[2] American Psychological Association (2020). *How do you cite an interview?* APA Style Blog. Retrieved from: https://apastyle.apa.org/blog.

Use of Images and Copyright

Copyright is a property right, which protects literary, dramatic, musical, and artistic works such as photographs. It automatically comes into being when a qualifying work is created and it grants the creator the right to authorise or prohibit copying, distribution to the public, rental/lending, public performance, adaptation, and communication to the public. When a work becomes available for use without permission from a copyright owner, it is said to be "in the public domain." Most works enter the public domain because their copyrights have expired. Therefore, you need to seek permission to use an image produced by someone else (electronically or in physical form) unless you are sure that your use falls within the copyright restrictions or the copyright in the image has expired.

Images, diagrams, and artistic works should be cited as you would cite any other type of work.

General Format In-Text Citation (Paraphrase and Quotation):

- (Artist Surname, Year)

It is your responsibility to do due diligence as well as document each image and its source to the best of your abilities. Images in the text are accompanied by a caption that includes copyright information and a statement of permission for use. Please check with your supervisor to see if this is necessary.

Caption for an image retrieved online:

Basic Format: Figure number. Description or title of the image. From "Title of Article," by Author, year, http://www.someaddress.com/full/url/. Copyright [year] by the Name of Copyright Holder. Reprinted [or adapted] with permission.

Example: Figure 1. Depression. From "Causes of Depression," by L. M. Anderson, 1992, http://www.psychiatrichealth.com/. Copyright [1992] by Jill Crowne. Reprinted with permission.

Source: UC Santa Cruz. *Evaluate, Use, and Cite your Sources.* How to Cite Photographs - APA Style.
https://guides.library.ucsc.edu/c.php?g=604206&p=4187556

Concerning the reference list entry, you should give as much information as possible about the images that you have used, including these basics:
- Creator's name (author, artist, photographer etc.)
- Date the work was published or created.
- Title of the work
- Place of publication
- Publisher
- Type of material (for photographs, charts, online images)
- Website address and access date
- Name of the institution or museum where the work is located (for artworks and museum exhibits)
- Dimensions of the work (for artworks)

Reference list entry:

Basic Format: Artist or Author. (Year of image creation). Description or title of image [Image format]. Retrieved from http://www.someaddress.com/full/url/.

Example: Smith, J L. (2001). Stressed adult [Photograph]. Retrieved from http://www.stressanddepression.com.

Citing a photograph retrieved online according to the APA style:

Photographer, A. (Photographer). (Year, Month Date of Publication). *Title of photograph* [digital image]. Retrieved from [URL]

Example[3]:

Ferraro, A. (Photographer). (2014, April 28). *Liberty enlightening the world* [digital image]. Retrieved from
https://www.flickr.com/photos/afer92/14278571753/in/set-72157644617030616

Websites to find free-to-use images:

- Advanced Google Image Search
- More information on Google Image Search usage rights
- Creative Commons
- Pixabay

6.3 Plagiarism

You must avoid plagiarism at all costs. When you refer to the work of others you must acknowledge this work, even if you do not cite from the text directly. All master's theses will be automatically checked by the anti-plagiarism software URKUND, and the consequences for being caught plagiarising are very serious.

Plagiarism refers to someone taking or using another person's work in their own research and writing without adequately acknowledging the source. The most obvious form is citing someone else's words or results without acknowledgement, but there are other kinds of plagiarism, for example, using a verbatim passage without quotation marks even if the source is acknowledged in a reference, or passing someone else's ideas off as your own. Please note that a page number should always be given where you are providing a direct quotation (and of course, this quotation must be in quotation marks).

One way to prevent plagiarism is to include reference details when taking notes. If you copy verbatim from a source into your notes always include quotation marks, author, year of publication and page number details. Adopting this practice systematically will prevent you from later inadvertently confusing verbatim quotations for your own words.

Failure to observe any of the provisions of the Hertie School's policy on plagiarism constitutes an examination offence under your study programme's Examination Rules.

Examples of master´s thesis content, which would constitute plagiarism, include:

1. Turning in someone else's work as your own.

---

[3] Example taken from: Bibme.org. *How to Reference a Photograph in APA* - APA Photograph Citation. https://www.bibme.org/citation-guide/apa/photograph/

2. Copying the words used in a textbook or paper written by someone else (whether published or not) without clearly indicating, through the use of quotation marks and a fully cited source, that the words are not your own.

3. Closely paraphrasing the words of a textbook or paper, to have the same effect as (II.) above, albeit with minor differences in wording (i.e., changing words but copying the sentence structure of a source without giving credit).

4. Giving incorrect information about the source of a quotation.

5. Using an argument or line of argument from a book or paper written by someone else, without indicating the source, and in such a way as to suggest that the argument is your own.

6. Presenting data, for example in a table, which has been obtained from a book or paper written by someone else without clearly showing the source from which the data was obtained.

7. Recycling sections of your own work previously submitted, i.e., self-plagiarism. You are permitted to use sections of work that you have previously submitted for assessment, but you need to include a citation acknowledging where the passage comes from.

Please be aware that plagiarism is not confined to copying material from published books and papers. Copying material from unpublished papers, government papers, or consultancy reports constitutes plagiarism in the same way. Likewise, material drawn from websites should be clearly identified, with details given of the source and – since the contents of websites can change –the date at which the material was obtained.

There is an imprecise boundary between (a) plagiarism and (b) work which is unoriginal. Where a master´s thesis is overly reliant and dependent on one (or a small number) of studies, the thesis would likely be regarded as unoriginal and excessively dependent on other works and would therefore be liable to receive a low mark.

For further information, please refer to the school's Plagiarism Guidelines.

6.4   Research Ethics

The Hertie School is committed to academic freedom and research excellence. Sound ethical standards are imperative for excellent research. The _Hertie School Research Ethics Review Policy_ outlines the standard ethics review and approval process for all research projects, with particular provisions for Master's students outlined in point 7.

a) According to this policy, all Master's students are expected to:
b) Consult the dedicated _Research Ethics Moodle site_
c) Complete the _Self-Assessment checklist_ at the beginning of their Master's Thesis Colloquia, and discuss any issues with their supervisor

If a master's thesis project raises complex ethical issues, the supervisor shall advise the student to consult the research ethics officer for further guidance.

6.5   Artificial Intelligence Guidelines

The Hertie School believes it is crucial to make sensible use of the fast-improving Artificial Intelligence (AI) tools, and where possible to limit or prevent potential abuse. AI content generation can provide

valuable help for many tasks if used reasonably. As such, we want to enable our students to become acquainted with them. However, it is also clear that machine-generated work handed in as one's own is a violation of academic integrity in the same way as plagiarism or other forms of authorship fraud.

Please consult the Hertie School's *Guidelines for Artificial Intelligence Tools*, particularly section 1 *Authorship and Academic Integrity* if you intend to use AI while working on your Master's Thesis project.

6.6 Computer Code Adaptation

Recycling and adapting someone else's code for your own research is a sensitive issue. Although the open-source community prides itself on the culture of sharing, recycling, and reusing code to solve common programming problems, it is required that you abide by the following rules when you engage in adapting other people's code for your research project:

1. Always check the repository where the original code is released for copyright and license disclaimers. If the code contains open-source licenses such as Creative Commons, Apache 2.0, or MIT, you are mostly free to adapt and reuse the code for your own project.

2. Always double check on the terms and conditions of the licenses as they may contain special requirement (GPL license, for example, stipulates that you can reuse the code, but your own code must then be released under the GPL license free of charge).

3. If there is no copyright or license disclaimers, you are free to reuse the code, but appropriate citation is required.

4. Regardless of licensing, you need to cite the author of the original code and in referencing the code in question. It is advised to provide the link to the public repository from which you acquire the code (e.g., GitHub). When crediting the authors, you may want to clarify the level of modification of their original codes for your research to accurately represent the contribution of their work and your own effort.

5. Solutions to minor coding problems found on question-and-answer platforms such as StackOverflow or StackExchange do not need to be cited.

One of the goals of the Master's Thesis is to demonstrate your ability to implement independent research. Therefore, you need to make sure that your thesis advisors are fully aware of what parts of the research are your own work, and what parts are the work of others, so that your accomplishments and contribution to the field can be appropriately evaluated.

6.7 Submitting your Master's Thesis

Please observe the formal requirements below. Contact the Examination Office with any questions you may have before submission.

- **Digital version:** Please submit an electronic version of your master´s thesis in PDF format to the Moodle Dropbox **and** per email to the Examination Office. *Please note*: the digital version is the official version that will be read and graded by your supervisor and second reader; however, one identical hard copy must be submitted for the library archive.

- **File Naming:** Please save your master´s thesis in the following PDF format: **lastname_firstname_master_thesis.pdf**

- **Location of the Moodle Master's Thesis Dropbox:** You can access the Moodle Dropbox via: MPP/MIA/MDS Master's Thesis Dropbox

- **Confidentiality of thesis:** Students who wish to declare their Master's thesis as confidential should include "classified" in their email header when submitting the Master's thesis to Examination Office.

- **Hard copy version:** One bound hard copy must be submitted to the Examination Office. This copy must be identical to the digital version.

- **Illness and late submission**: In case of illness, please inform Examination Office and consult a medical doctor <u>before</u> the end of the deadline. You should submit the medical certificate (Krankmeldung) immediately to Examination Office (room 1.59). No other justification for late submission will be accepted.

6.8   Submission FAQs

- Do I have to print my master's thesis one or double-sided?
  - You can print your master's thesis either single or double-sided.
- How should I bind my master´s thesis?
  - Please have your master´s thesis bound at a copy shop, with a tape binding. This type of binding is called "Leimbindung" or "Klebebindung" in German.
  - Please **do not** use spiral binding. You do not have to have a hardcover. There are multiple copy shops near the Friedrichstraße S-Bahn, around Humboldt University.
  - You can also use the binding machine at the Hertie School Library which can bind up to 250 sheets.
- Do I have to submit other documents with my thesis, such as interview transcripts or Stata/R software do-files?
  - Please discuss this with your supervisor before submitting your master´s thesis.
  - MDS students must submit a full replication set containing computer code, accompanying programming documentation, and data (considering relevant data protection legislation). Please discuss these details with your supervisor before submitting your master´s thesis.
- Will my submitted copy be returned to me?
  - No. Your submitted copy will be archived in the library. With your consent, the copy will be made available to others to be read in the library.

6.9   Formatting and Submitting your Master's Thesis Poster

Poster format requirements
- **Dimensions**: DIN A1 portrait (59.4cm × 84.1cm).
- **Line spacing**: 1.5 or double spacing for legibility.
- **Capitalization**: Avoid using all-caps.
- **Fonts**: Use large and easy to read fonts (e.g., Arial or Helvetica). Do not use more than two fonts.
- **Text density**: Limit text to about one-fifth of the poster.
- **Layout:** Organize your content in a maximum of three columns that anyone can read top-down and left to right.
- **Tables and figures**: Keep tables and figures simple and easy to read; include a clear caption that clearly describes the table or figure.
- **Software**: Use presentation software such as Microsoft PowerPoint, or equivalent software for graphic design.
- **File compression**: Put graphics in a compressed format (JPEG, GIF, PNG, etc.).
- **Margins**: Leave page margins (at least 1.5 inches) to prevent losing content during printing.

Examples of master's thesis poster layout
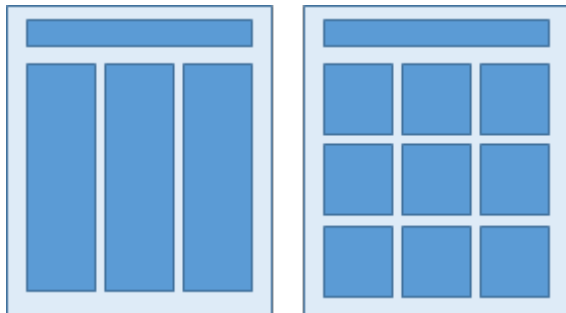
How to format the poster in PowerPoint:
1. Open a new file and choose blank presentation as layout.
2. Go to the "Design" tab in your menu bar and open "slide size."
3. Choose a custom slide size and set it to A1 by entering the dimensions (59.4cm × 84.1cm). Chose "portrait" as orientation.
4. Prepare your poster in the same way you would prepare a presentation slide (without animation).

Submitting your master's thesis poster
Your master's thesis poster must be submitted in digital format only. File format:
- PDF format.
- The size of this file should be less than 10 MB.

1. **Submit** your master's thesis poster to Examination Office in **digital format** (Moodle Dropbox and email) by the thesis poster submission deadline.
   a. Students who wish to declare their master's thesis poster as confidential should include "classified" in their email header when submitting the thesis poster to Examination Office.
2. **Register** your digital poster to the online exhibition tool **Smart Abstract** by the thesis poster submission deadline to participate in the poster competition. Please find a step-by-step guide on how to register your poster with the online exhibition tool Smart Abstract here.
3. **Submit** your digital poster to the online exhibition tool **Smart Abstract** by the day after the poster submission deadline. Please find a tutorial on how to submit your poster via the online exhibition tool Smart Abstract here.

6.10 Virtual Master's Thesis Poster Exhibition and Poster Competition

The virtual master's thesis poster exhibition provides students an opportunity to showcase their research to a wider audience, including the Hertie community. The poster exhibition is held via the poster exhibition provider Smart Abstract. The exhibition opens after the master thesis poster deadline in May and remains online for one year.

In tandem with the poster exhibition, the Hertie school runs a master's thesis poster competition. All posters participating in the online exhibition are automatically entered into the poster competition. The winning posters are chosen via a 2-step process. First, all submitted posters are reviewed by a pre-selection committee comprised of Hertie Ph.D. students who select the top 20 posters. Second, a jury of three Hertie faculty members determine **the three winning posters.** The jury members assess the poster's logic structure, traceable presentation of findings, visualisations, and citations. For examples of award-winning posters from the AY 2020-2021 see here on Moodle.

If the results of your master's thesis are confidential, please consider creating your poster without confidential content, so that you can still take part in the master's thesis poster exhibition and competition. If this is not possible, please still submit your digital poster and consent form to Examination's Office and Dropbox, indicating that your poster is to be treated confidentially.

7   Institutional Resources for Your Master's Thesis Project

7.1   Master's Thesis Workshops

Curricular Affairs organizes multiple Master's Thesis workshops throughout the academic year. These research design and research management workshops will help you further understand and implement the skills necessary to complete your academic thesis according to the principles of the scientific method. They will cover all stages from research design to the analysis of your findings and the write-up. Among the key questions addressed in the workshops are:

- How to find a suitable topic and research question for your master's thesis.
- How to explore academic literature.
- How to define the scope and goals of your research project.
- How to develop theory-driven hypotheses.
- General advice on the selection of research methods.
- How to move from the analysis to the results write-up.
- General advice on how to manage your research project.
- Making sense of your results: describing your contribution, the limitations of your research, and pathways for further research.

Please note that the workshops will not focus on advanced research methods or data collection strategies and that it may not be possible to provide personalized feedback on concrete research design ideas. Rather, the workshops are meant to guide you as you develop and implement a research idea in broad terms.

Attending the workshops is not mandatory. However, we strongly recommend that you attend, since they address the most common issues that students face during their master's thesis. Please check the relevant Moodle section for dates and details of upcoming workshops.

7.2   Data Science Lab's Research Consulting

The purpose of the Data Science Lab's Research Consulting service is to provide help and advice on methodological and/or technical issues that appear during your research. The service is mostly focused on questions of research design, quantitative measurement and statistical inference, computational tools (particularly R and text analysis), and data or results visualization, but can also assist with other types of research project questions. You can check the Research Consulting team's current office hours and book an appointment on Moodle.

7.3   Research Skills and Methods Handbook

A Handbook with eight learning modules, coordinated by the Academic Counsellor, which introduce you to key research skills and concepts that might be helpful to plan and write your thesis. You can access the Handbook here.

7.4 Software Support for Research

All students have access to Overleaf Commons under the Hertie School institutional subscription which provides all the premium features available on the platform for collaborative and personal scientific writing, including but not limited to reference manager sync, Dropbox integration, Git and GitHub integration, full document history and collaborative editing.

As a Hertie student, you also have access to the GitHub Student Developer Pack which provides several useful resources for learning or development of prototypes for your research. Using your Hertie email, you will also have access to premium Github Co-pilot, an AI pair programming service which can provide code suggestion in real-time to help save time on solving small programming problems.

7.5 Hardware Support for Research

All students working on computationally intensive data science projects have access to the Hertie School's GPU cluster. The guideline on how to access the supercomputing infrastructure can be found here: GPU Guideline. Please note that the cluster should only be used for research and model training that requires GPU usage. For research that does not require deep learning operations and GPU usage, please utilize other free and available platforms such as Google Colab or Kaggle Notebooks. Please contact the Data Science Lab if you have any questions regarding access to the GPU server for your research.

7.6 Master's Thesis Support Services by the Hertie School Library

The Hertie School Library team can assist you with finding books and electronic resources. Electronic databases and journals are available in the library and remotely from anywhere else. See the Library's Moodle Page for more information on your library user account or how to access resources remotely.

Interlibrary loan service

With its free-of-charge interlibrary loan service, the library can deliver needed material which is not available at the library. Books, book chapters, journal articles, theses, dissertations, and other publications not owned by the Hertie School Library can be ordered.

Research consultation appointments

When you need help with finding resources for your master's thesis, you can make an appointment with the library team. Typically, appointments last 45 to 60 minutes. Please send an email to Anke Reintsch with the following information:
- What is your topic?
- What steps, if any, have you already undertaken to get started on your research?
- When will you be available?

Reference management software

There are a number of reference management products, that can help you manage your references and create a formatted bibliography. The library team supports the use of Citavi by offering training sessions and 1-1 support. Feel free to contact the library for further information.

Previous master's theses

The library holds copies of theses submitted to the Hertie School. They are only available for reading in the library. Please note that photocopying is not allowed. You can search for titles from previous years, or for a supervisor, using the library's online catalogue and entering the subject heading "master theses", which can be combined with searches for the subject area (e.g., "master theses lsw mpp") and/or the supervisor (e.g., "master theses lsw mpp per mair"). For search tips on Hertie School master's theses, see the Library's Moodle page.

7.7   Academic Resources Beyond the Hertie School Library

Students enrolled in an academic institution in Berlin are eligible to visit a range of other libraries in Berlin. Most of them will require a current ID and proof of address for the membership card. Sometimes additional documentation may also be required.

Berlin's State Library

- One of the largest academic libraries in Germany, the Berlin State Library is located very close to the Hertie School and offers remote access to its abundance of electronic resources. Library users are required to have an identification card issued by the state library.
- Library membership is free. You can sign up by completing a registration form and providing a valid passport or a state-issued identification card are needed. A valid certificate of residence (Meldebescheinigung) is needed if the address is not mentioned on your identification card.
- Citizens from non-EU countries need to present a residence permit, which is still valid for at least three months, or certification of enrolment from a German university (State Library).
- The collections of Berlin's many libraries can be searched with , the KOBV (online catalogue) library portal for Berlin and Brandenburg.

Research Institutions

The Hertie School Library has cooperative arrangements with the libraries of the German Institute for Economic Research (DIW), Berlin's Social Sciences Centre (WZB) and the European School of Management and Technology (ESMT). As a student of the Hertie School you can use their electronic resources on site:

- DIW
- WZB
- ESMT

Good luck completing your Master's Thesis module!

Do you have feedback on these guidelines? Is there a topic that isn't covered in sufficient detail and that you think could be helpful for other students? We love to receive suggestions, comments, and ideas – send them to curricular-affairs@hertie-school.org. Thank you!